West Lake Landfill: Information Packet for AA site visit on March 20, 2012

The site is a 200-acre municipal landfill site consisting of the State-permitted Bridgeton Sanitary Landfill and several older, unregulated landfill areas. Two unregulated areas of the landfill, identified as Operable Unit (OU)-1, became radiologically contaminated in 1973 when leached barium sulfate (a uranium ore processing residue) mixed with soil was used as daily cover in the landfill operation. The remainder of the landfill area at the site is included in OU-2. EPA placed the site on the Superfund National Priorities List (NPL) in 1990.

EPA agreed to several extensions of the public comment period on the proposed plan for this Site and held public meetings on June 22, 2006, September 14, 2006, and March 27, 2008 before issuing the Record of Decision (ROD) in May 2008. The selected remedy is to contain the waste material in place through construction of an engineered landfill cover and implementation of a long-term monitoring and maintenance program. The ROD estimates the cost of the remedy to be approximately $22 million.

There are critics of EPA's remedy, including those affiliated with the Missouri Coalition for the Environment (Coalition), who want the radiologically-contaminated waste to be excavated and shipped to an off-site location. Concerns expressed by these critics include: the waste poses a current public health risk and that it is unsafe to manage these materials in place; the waste will migrate to the groundwater and the Missouri River; the site is in a floodplain which could affect the integrity of the remedy; and the landfill does not have a liner to isolate the contamination from the environment. Critics also draw comparisons to the nearby North St. Louis County FUSRAP sites, where similar contamination in a very different exposure scenario is being excavated and shipped off-site. The Responsiveness Summary that accompanied the ROD thoroughly addressed these concerns and many others raised by the public.

In an April 2009 letter to the Administrator, the Great Rivers Environmental Law Center (GRELC), on behalf of the Coalition, again raised these concerns and requested the remedy be reevaluated. In response, EPA HQ OSRTI had several technical experts review the ROD, and these experts suggested four specific measures to include in the design of the engineered landfill cover. GRELC sent a second letter in December 2009 to Mathy Stanislaus stating that "...the ROD promulgated by the prior administration was ill-advised and mistaken."

After extensive consultation between the Region and HQ, EPA decided to conduct a SFS that evaluates full-scale excavation of the radiologically-contaminated landfill material with either off-site disposal or on-site disposal in an engineered cell. The private PRPs, with financial contribution from the federal PRP, agreed to perform the supplemental feasibility study (SFS) under the existing administrative order on consent. There are four PRPs for OU1 at this site: Bridgeton Landfill, LLC; Rock Road Industries, Inc.; Cotter Corporation N.S.L. and the Department of Energy. The SFS was completed in December, 2011.

The SFS re-evaluated the ROD remedy to update cost and schedule information and include costs of an enhanced cap. The new estimate of costs for the selected remedy with enhanced the cap is $41.4 million. The SFS report also includes two other estimates: the cost of excavation with off-site disposal, $259 to $415 million; and the cost of excavation with on-site disposal, $137 million.

Region 7 met with the St. Louis Airport Authority on September 7, 2010 to discuss how the negative easement the Airport holds on the landfill would affect the excavation remedies being considered in the SFS. The easement prevents any "...new or additional depositing or dumping of municipal waste..." and is intended to reduce the risk of bird strikes to aircraft. The Airport opposes both excavation remedies based on the potential for increased bird strikes, and sent EPA a letter to this effect September 20, 2010.

There are two potential Environmental Justice areas near the site: a trailer park approximately one mile southeast of the nearest OU-1 area, and the Spanish Village housing development approximately 1.5 miles south of the nearest OU-1 area. ECO will conduct an EJ assessment of these areas which uses the most current data and current procedures. The Region will provide targeted outreach to these communities during the upcoming public comment period on the post-SFS decision document.

West Lake Landfill
AA Site Visit
March 20, 2012

Maps courtesy of Microsoft Streets and Trips 2006

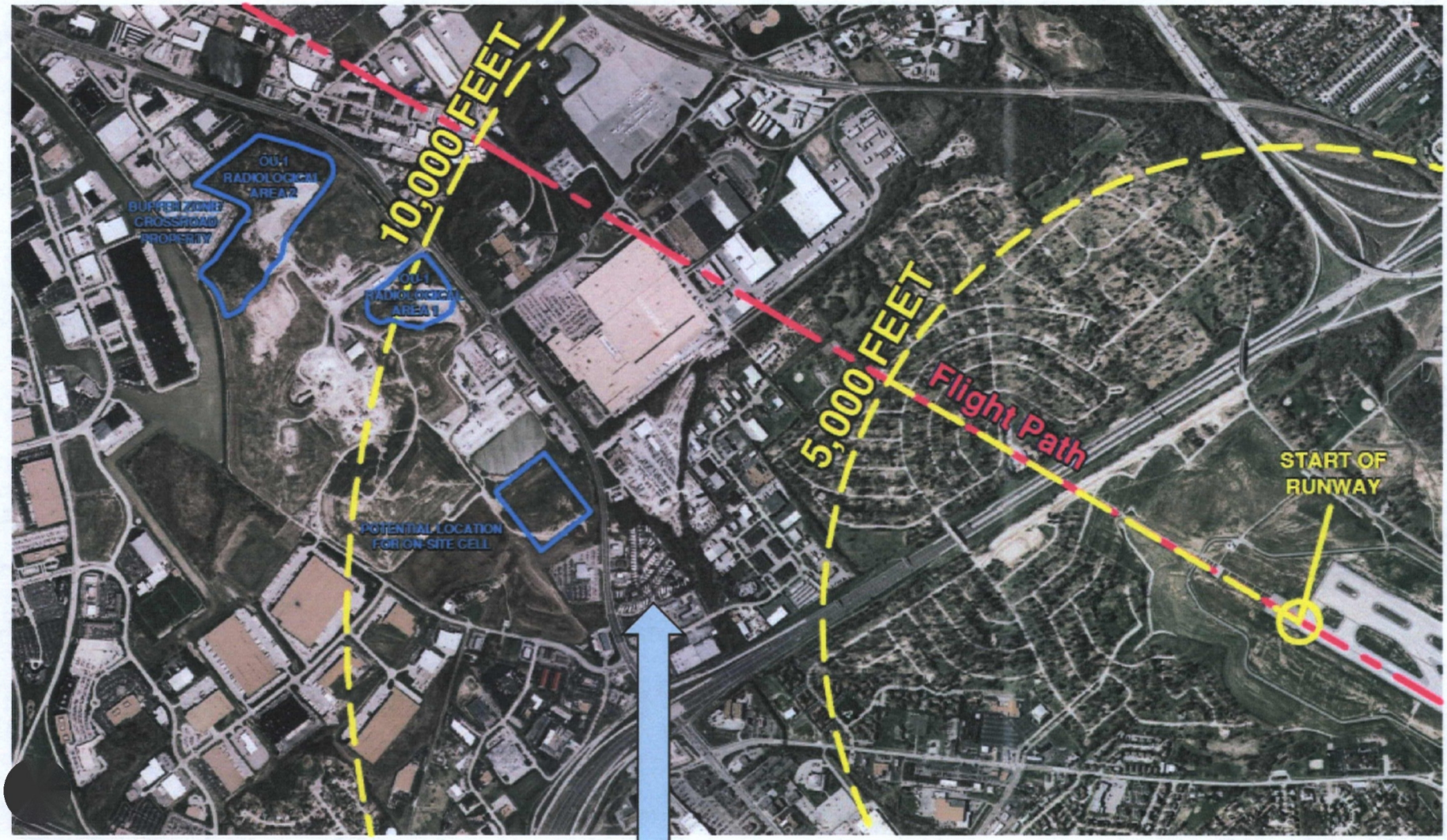
HERST & ASSOCIATES, INC.

West Lake Landfill OU-2
Bridgeton, Missouri

Figure 1-1
Site Location Map

Site Boundaries


Earth City
LEVEE
SITE



Source: Google Earth

Figure 6

Setback From Airport Runway

West Lake Landfill OU-1 Supplemental Feasibility Study

EMSI Engineering Management Support, Inc.


Shaded area is the Earth City Industrial Park inside the Levee
SITE
Spanish Village
Missouri Bottom Road
Boulder Industrial Drive
Northwest Industrial D
180
Candy Lane
Green Ash Drive
Shoreline Drive
Rams Way
Boenker Lane
Lakefront Drive
Rider Trail North
Corporate Exchange Drive
Forester Road
San Sevilla Court
Earth City Expressway
Interstate Drive
Mark Twain Expr
South Riverside Drive
South Main Street
Katy Trail
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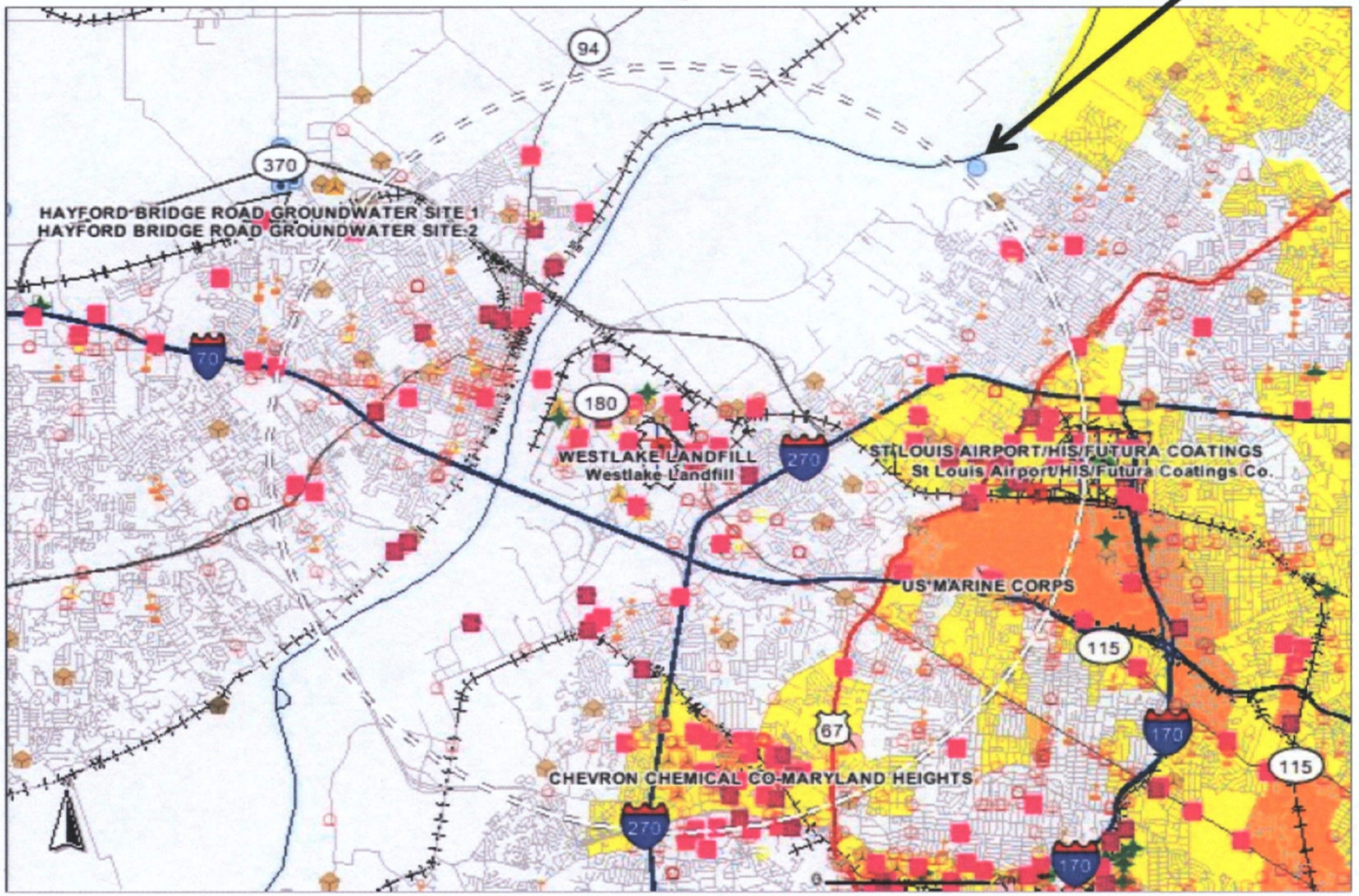
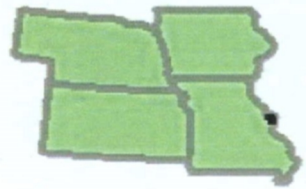
Known EJ areas near Site

Region 7 SiteMapper

Drinking Water Intake





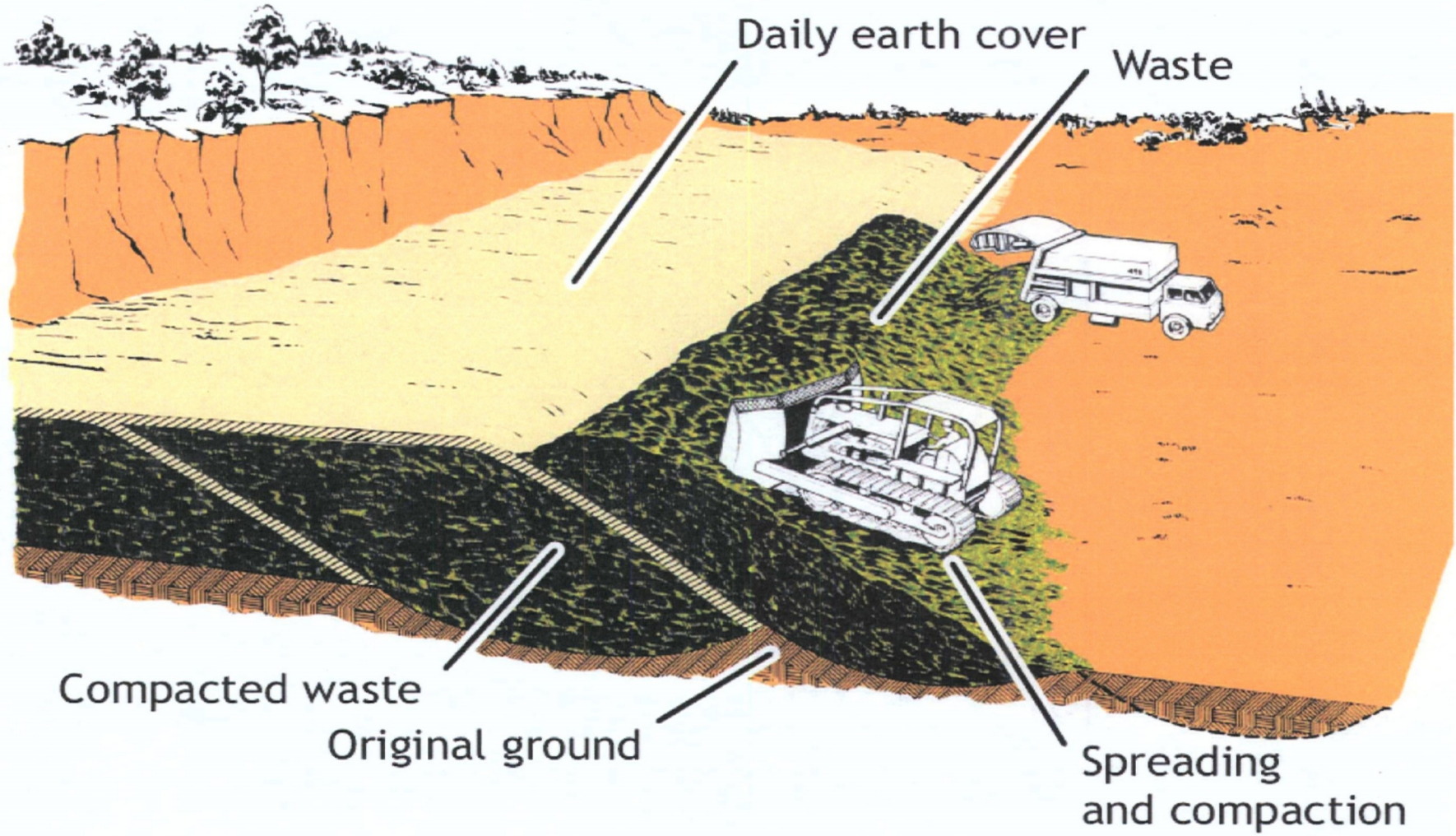
- Missouri Cleanup Sites
- Missouri Schools
- Missouri Petro Tanks
- Missouri LUST
- Missouri CAFO
- AFS - Major
- AFS - Minor
- RCRA TSD
- RCRA LQG
- R7 Superfund Polygons
- Superfund NPL

NOTE: The Environmental Protection Agency does not guarantee the accuracy, completeness, or timeliness of the information shown, and shall not be liable for any loss or injury resulting from reliance upon the information shown.

"Minorites" is a percentage of minority individuals relative to total population per block group. "Below Poverty" is the percentage of the total block group population with incomes below the poverty level in 1999. Block group geography and demographic data are based on the 2000 Census. This information depicts areas of concern where potential environmental and/or human health problems may disproportionately impact a population.
This information should not be used in comparison to previous EPA Region 7 Environmental Justice maps using 1990 data, as the data parameters have changed. The EPA Region 7 Environmental Justice Program has chosen to adopt the U.S. Census Bureau's parameters for poverty and race/ethnicity status in an effort to show a more accurate picture.

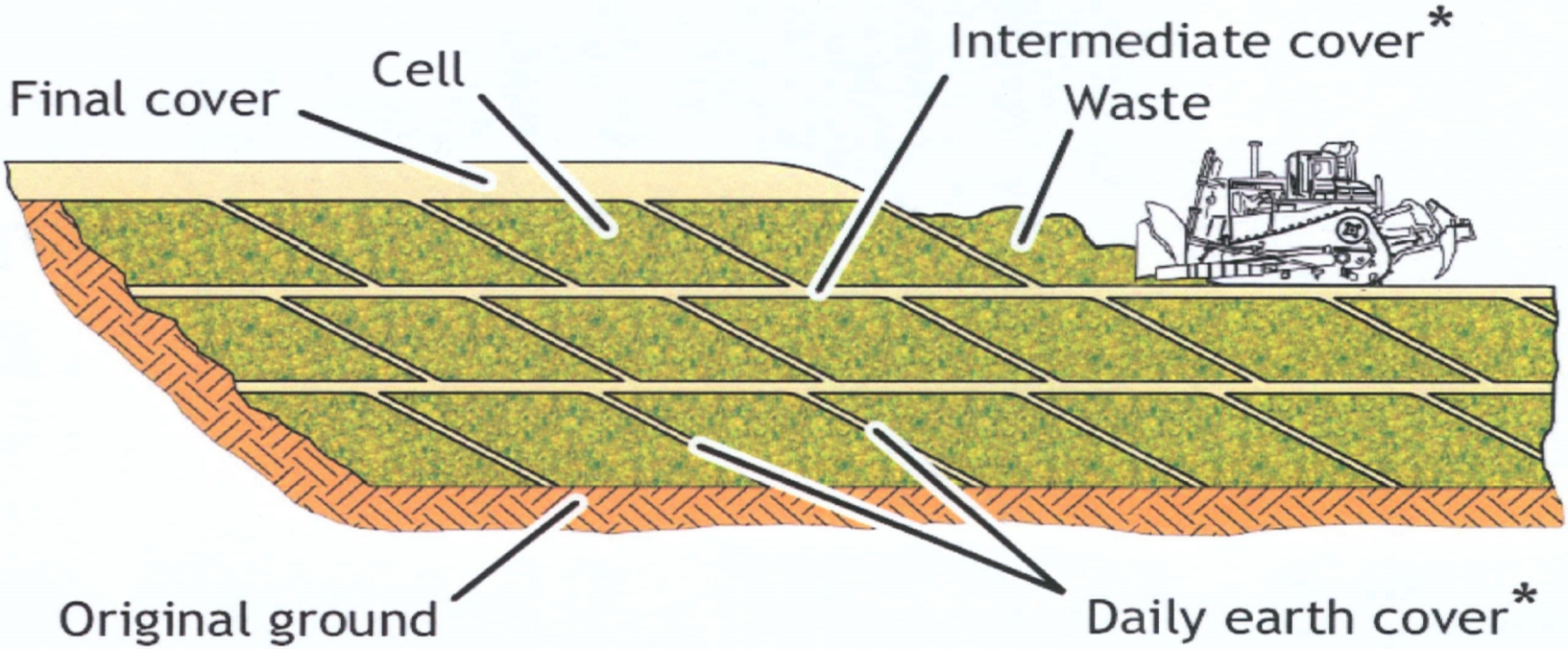
EPA
REGION 7
ENSV Division
7-29-2010

GENERALIZED LANDFILL OPERATION



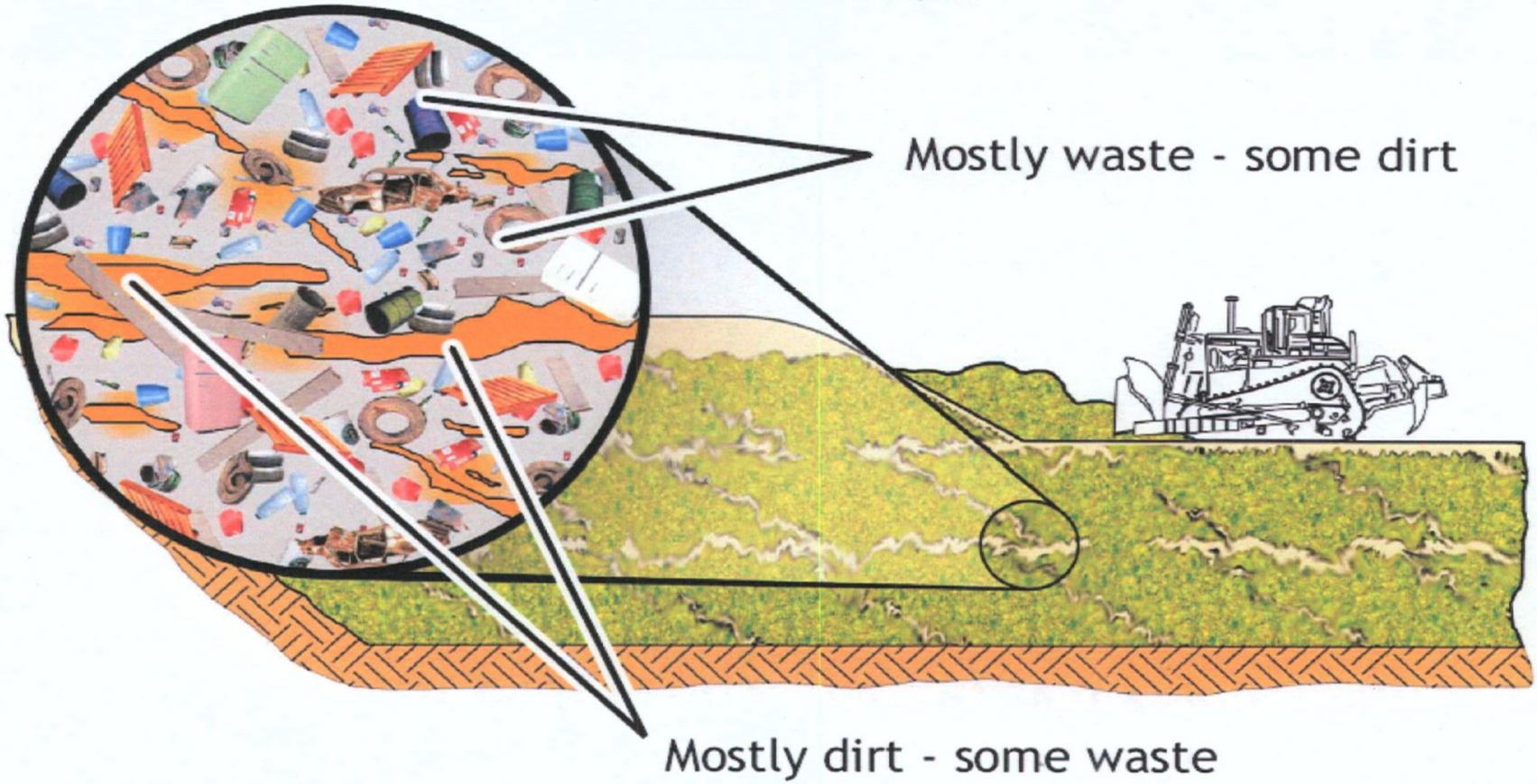
The radiologically contaminated soil was used by the landfill operator as daily cover.

GENERALIZED LANDFILL CELL CONFIGURATION

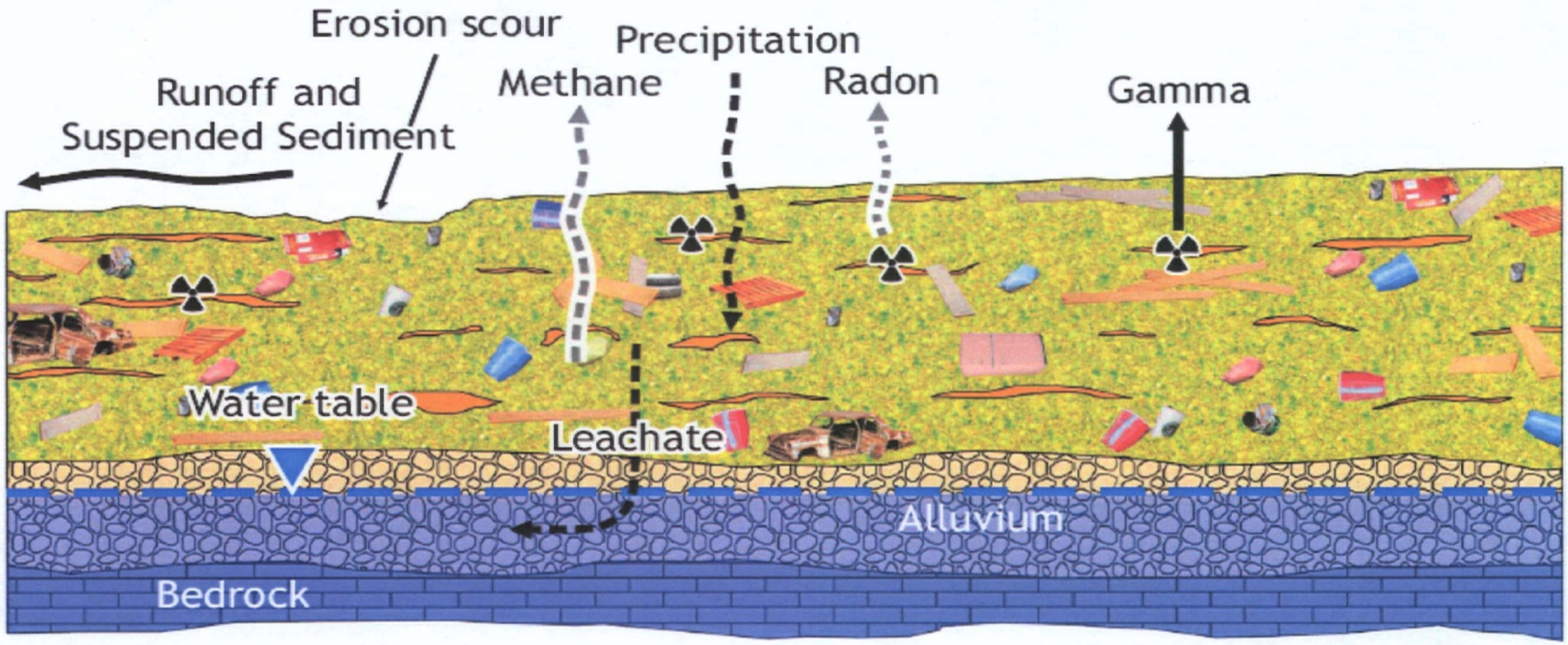


*Highly idealized soil layers. This configuration does not reflect mixing of soil with trash or distortion of soil layers by subsequent compaction and placement of additional fill.

TYPICAL MIXING OF WASTE AND DIRT IN LANDFILL

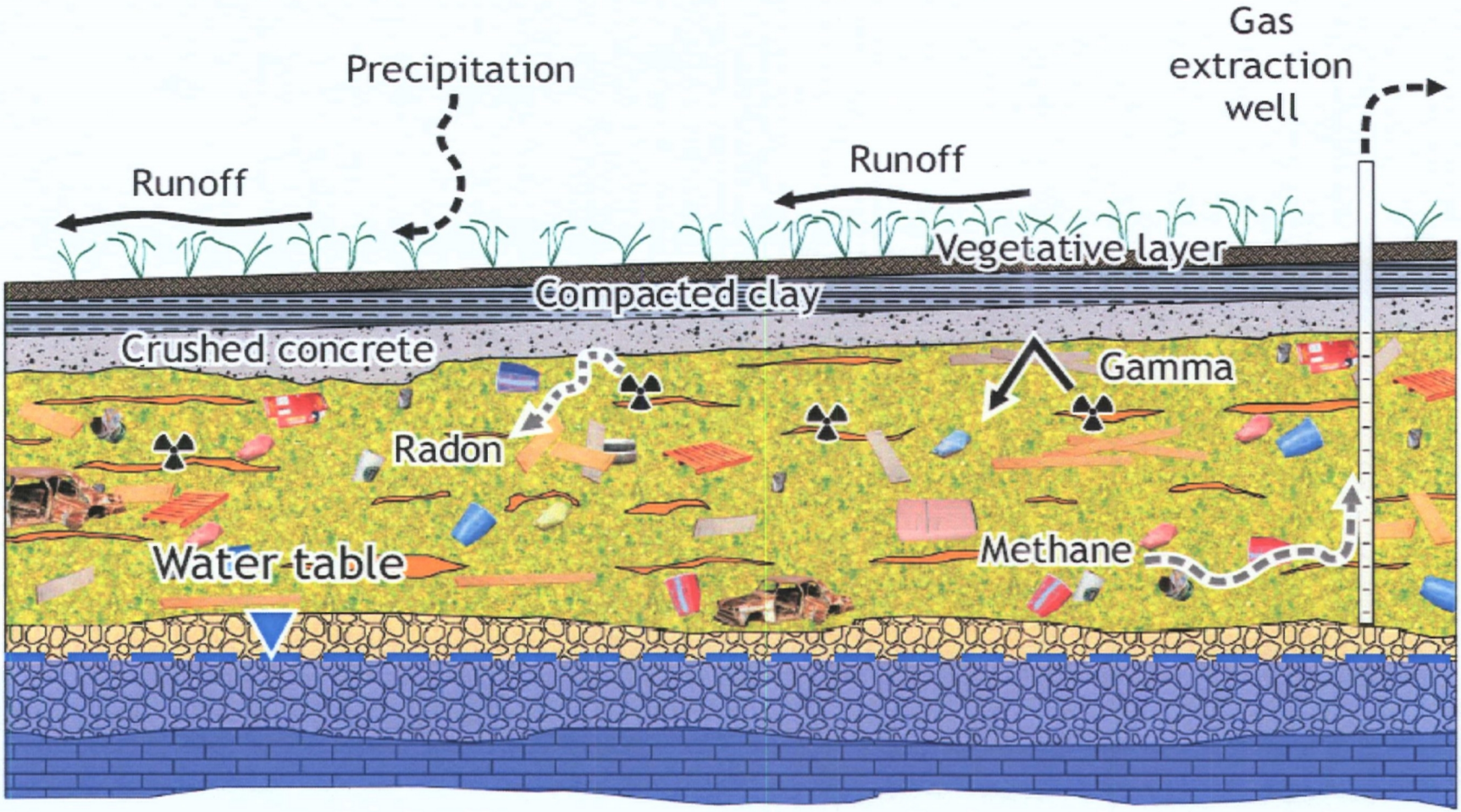


MIGRATION PATHWAYS



This scenario approximates current conditions at OU-1, where some waste is exposed at the surface. Erosion of the waste has occurred in the past.

LANDFILL AFTER ENGINEERED COVER



This would be the scenario after implementation of the ROD remedy.